

Appn No. 10/760,273
Amendment dated May 30, 2006
Reply to Office Action of April 28, 2006

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A printhead module for a printhead assembly, comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media, and an elongate support member adhesively supporting the printhead integrated circuits via individual fluid distribution members for each printhead integrated circuit,

wherein the support member has a plurality of longitudinally extending channels for carrying different printing fluids for the printhead integrated circuits, and

the support member is selectable to meet specific requirements as to the number of said printing fluids to be employed for printing, and

each of the fluid distribution members incorporates a laminated stack of layers, each layer having apertures for distributing the printing fluid from the support member to the associated printhead integrated circuit, the apertures of each layer from the support member to the associated printhead integrated circuit being of successively smaller diameter.

2. (Currently Amended) A printhead module according to claim 1, wherein:

the support member, the fluid distribution members and the at least two printhead integrated circuits are formed as a unitary arrangement with ~~at least one fluid distribution member mounting the at least two printhead integrated circuits to the support member, and~~ an electrical connector for connecting electrical signals to the at least two printhead integrated circuits; and

the support member includes a plurality of apertures extending through a wall of the support member arranged so as to direct the printing fluid from the plurality of channels to associated nozzles in both, or if more than two, all of the printhead integrated circuits for printing by way of respective ones of the fluid distribution members.

3. (Original) A printhead module according to claim 2, wherein the printhead module is arranged to be removably mounted to the printhead assembly.

4. (Original) A printhead module according to claim 2, wherein the support member is formed with a further channel for delivering air to the at least two printhead integrated circuits for maintaining the nozzles of the at least two printhead integrated circuits substantially free from impurities.

5. (Cancelled)

6. (Currently Amended) A printhead module according to ~~claim 5~~ claim 1, wherein:

~~each of the fluid distribution members is formed as a~~ laminated stack ~~of~~ comprises at least three layers comprising an upper layer upon which the associated printhead integrated circuit

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is mounted, a middle layer and a lower layer which is attached to an upper surface of the support member;

the lower layer includes first distribution apertures arranged to align with respective ones of the apertures in the support member and first distribution channels in an upper surface thereof associated with respective ones of the first distribution apertures, the first distribution apertures having substantially the same diameter as the apertures in the support member;

the middle layer includes second distribution apertures arranged to align with the first distribution channels of the lower layer, the second distribution apertures having a smaller diameter than the first distribution apertures;

the upper layer includes second distribution channels in a lower surface thereof arranged to align with the second distribution apertures of the middle layer and third distribution apertures associated with the second distribution channels, the third distribution apertures having a smaller diameter than the second distribution apertures; and

the associated printhead integrated circuit includes nozzle supply apertures arranged to align with the third distribution apertures of the upper layer and to direct fluid to respective ones of the nozzles, the nozzle supply apertures having substantially the same diameter as the third distribution apertures.

7. (Original) A printhead module according to claim 6, wherein the apertures of the support member have a diameter of the order of millimetres and the nozzle supply apertures of the at least two printhead integrated circuits have a diameter of the order of micrometres.

8. (Currently Amended) A printhead module according to claim 2, wherein a lower surface of ~~the at least one each~~ fluid distribution member is attached to the upper surface of the support member by an adhesive material.

9. (Currently Amended) A printhead module according to claim 8, wherein the adhesive material is deposited to form a gasket which surrounds each of the apertures of the support member and each of corresponding apertures formed in the lower surface of the ~~at least one~~ fluid distribution member so as to form a seal between the respective apertures.

10. (Original) A printhead module according to claim 9, wherein:

the apertures of the support member are formed in a row extending across the support member with respect to the longitudinally extending direction of the support member; and

two deposits of the adhesive material are deposited on either side of the row of apertures to provide stability for the mounting arrangement.

11. (Original) A printhead module according to claim 10, wherein the adhesive material is a curable resin.